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#6/Response  
masha  
8/12/03

Application/Control Number 10/017,236  
Art Unit: 2874

July 18, 2003

Attention: Daniel J. Petkovsek

Dear Mr. Petkovsek:

This letter is to reply the office action on the above application you sent to us on 06/20/2003. Enclosed please find an argument letter on the rejection of our claims 13-14 and 16-22, a corrected specification, and revised drawings (Fig 2-8) in accordance with your suggestion. If you have further questions or comments, please feel free to contact me.

Sincerely,

King Wang

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Dear Examiners

We would like to argue the rejection of our claims 13-14, and 16-22. Your decision was based on Hou et al. U.S.P. No. 6441,961. Upon close examination of U.S.P. No. 6441,961, we found that there is a major difference in the design of the key component of polarization rotator used for actively switching the light path.

In U.S.P. No. 6441,961, Hou et al. use a square shape polarization rotator with  $\frac{1}{4}$  area cut off window as shown as 210 in Fig.2, 301 in Fig.3, and 401 in Fig.4. Since this irregular shape of crystal is very difficult and expensive to produce, the polarization rotator in Hou et al. is actually made of two piece of difference size, as show in Fig. 4. While in our design, we use a single piece square shape polarization rotator of regular shape.

Hou et al design will be disadvantages and impractical for use as an optical wavelength switch. This is because Hou's design not only require two pieces of the garnet, it would require very large applied filed, since the gap in the garnet will reduce the filed establishment. Moreover, the design is impractical for using Electro-Optic based polarization rotator, as our claims 10, 11, and 22. This is because the requirement of the irregular shape will render the electrode fabrication on the Electro-Optic Polarization Rotator very difficult, which is impractical for manufacture.

This difference is due to the fact that our design is for an active wavelength switch, while Hou et al. design is primarily for a passive wavelength interleaver. As evidenced in the difference of the product offerings by our company Agiltron Inc., ([www.agiltron.com](http://www.agiltron.com)) and Oplink Communications, Inc., ([www.oplink.com](http://www.oplink.com)) where Hou worked. As shown in the web sites, while we offer Non-mechanical Wavelength Switch, Oplink only offer passive wavelength Interleaver. Since the Chief Engineer of Oplink Communications, Inc. is now working at our company Agiltron, we know that Oplink has never made an active wavelength switch based on the design described in U.S.P. No. 6441,961. Hou et al claims on active wavelength function is a connectional add-on. Therefore it is disadvantageous as compared to our practical and proven design.

We are hoping this detailed information will be sufficient for you to allow our original claims.

Sincerely,

Dr. Jing Zhao

Chief Technical Officer

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